

IN THE CLAIMS:

Please amend Claims 1-19, as follows.

1. (Currently Amended) An electrophotographic photosensitive drum for use in an electrophotographic image forming apparatus and supported rotatably by a drum shaft, comprising:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

flanges provided on end portions of said cylinder in the axial direction of ~~the~~ said cylinder,

wherein at least one of said flanges ~~the flange~~ has an outer peripheral portion, a hole portion engaging the drum shaft, and multiple ribs ~~extended radially~~ extending radially in the ~~radius~~ radial direction, and

wherein said at least one of said flanges ~~the flange~~ is caulked by bending at least one part of the said cylinder inwardly in the ~~radius~~ radial direction at two positions opposing each other across ~~the~~ said hole portion, the two positions being other than positions on said outer peripheral portion intersected by the direction in which said multiple ribs extend ~~at which the multiple ribs intersect the outer peripheral portion in the extending directions thereof.~~

2. (Currently Amended) An electrophotographic photosensitive drum according to claim 1, wherein ~~the flange~~ said at least one of said flanges has a concave portion provided in ~~the~~ said outer peripheral portion and part of ~~the~~ said cylinder is bent inwardly in the ~~radius~~ radial direction and caulked to said at least one of said flanges ~~the cylinder~~.

3. (Currently Amended) An electrophotographic photosensitive drum according to claim 1, wherein said at least one of said flanges ~~the flange~~ has annular ribs provided between ~~the~~ said outer peripheral portion and ~~the~~ said hole portion.

4. (Currently Amended) An electrophotographic photosensitive drum according to claim 1, wherein ~~the~~ said electrophotographic photosensitive drum is mounted on a process cartridge attachable to/detachable from the main body of the electrophotographic image forming apparatus, and ~~the~~ said electrophotographic photosensitive drum is used for forming an image on a recording medium when the process cartridge is mounted on the main body of the ~~electrophotographic~~ electrophotographic image forming apparatus.

5. (Currently Amended) A process cartridge attachable to/detachable from an electrophotographic image forming apparatus, comprising:

- (i) a cartridge frame body;
- (ii) a drum shaft supported by ~~the~~ said cartridge frame body; and
- (iii) an electrophotographic photosensitive drum rotatably supported ~~rotatably~~ by ~~the~~ said drum shaft, including:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

flanges provided on end portions of said cylinder in the axial direction of ~~the~~ said cylinder,

wherein at least one of said flanges ~~the flange~~ has an outer peripheral portion, a hole portion engaging ~~the~~ said drum shaft, and multiple ribs ~~extended radially~~ extending radially in the ~~radius~~ radial direction, and

wherein said at least one of said flanges ~~the flange~~ is caulked by bending at least one part of ~~the~~ said cylinder inwardly in the ~~radius~~ radial direction at two positions opposing each other across ~~the~~ said hole portion, the two positions being other than positions on said outer peripheral portion intersected by the direction in which said multiple ribs extend; at which ~~the multiple ribs intersect the outer peripheral portion in the extending directions thereof~~; and

(iv) process means for acting for ~~the~~ said electrophotographic photosensitive drum.

6. (Currently Amended) A process cartridge according to claim 5, wherein said at least one of said flanges ~~the flange~~ has a concave portion provided in ~~the~~ said outer peripheral portion and at least one part of ~~the~~ said cylinder is bent inwardly in the ~~radius~~ radial direction and caulked to ~~the~~ said at least one of said flanges ~~cylinder~~.

7. (Currently Amended) A process cartridge according to claim 5, wherein said at least one of said flanges ~~the flange~~ has annular ribs provided between ~~the~~ said outer peripheral portion and ~~the~~ said hole portion.

8. (Currently Amended) An electrophotographic photosensitive drum for use in an electrophotographic image forming apparatus and rotatably supported ~~rotatably~~ by a drum shaft, comprising:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

flanges provided on end portions of said cylinder in the axial direction of ~~the~~ said cylinder,

wherein at least one of said flanges ~~the flange~~ has an outer peripheral portion, a hole portion engaging the drum shaft, and a groove which engages a fixing pin provided in the drum shaft in a direction ~~of~~ intersecting the drum shaft, ~~the~~

wherein said groove ~~being extended~~ extends in the ~~radius~~ radial direction and ~~transmitting~~ transmits a driving force of the drum shaft, and

wherein said at least one of said flanges ~~the flange~~ is caulked by bending at least one part of ~~the~~ said cylinder inwardly in the ~~radius~~ radial direction at two positions opposing each other across ~~the~~ said hole portion, in a direction in which said groove extends ~~at which the groove intersects the outer peripheral portion in an extending direction thereof.~~

9. (Currently Amended) An electrophotographic photosensitive drum according to claim 8, wherein said at least one of said flanges ~~the flange~~ has a concave portion provided in ~~the~~ said outer peripheral portion and part of ~~the~~ said cylinder is bent inwardly in the ~~radius~~ radial direction and caulked to ~~the~~ said at least one of said flanges ~~cylinder.~~

10. (Currently Amended) An electrophotographic photosensitive drum according to claim 8, wherein said at least one of said flanges ~~the flange~~ has a rib ~~extended~~ radially extending radially in the ~~radius~~ radial direction on the face of a side of said at least one of

said flanges opposite to the side of said at least one of said flanges on which ~~the~~ said groove is provided in the axial direction, and at least one part of ~~the~~ said cylinder is caulked at positions other than ~~the~~ positions of the outer peripheral portion intersected by a direction in which a plurality of ribs extends ~~at which the rib intersects the outer peripheral portion in an extending direction of the rib.~~

11. (Currently Amended) An electrophotographic photosensitive drum according to claim 8, wherein ~~the~~ said electrophotographic photosensitive drum is mounted on a process cartridge attachable to/detachable from the main body of the ~~electromagnetic~~ electrophotographic image forming apparatus, and ~~the~~ said electrophotographic photosensitive drum is used for forming an image on a recording medium when the process cartridge is mounted on the main body of the electrophotographic image forming apparatus.

12. (Currently Amended) A process cartridge attachable to/detachable from an electrophotographic image forming apparatus, comprising:

- (i) a cartridge frame body;
- (ii) a drum shaft supported by ~~the~~ said cartridge frame body; and
- (iii) an electrophotographic photosensitive drum rotatably supported ~~rotatably~~ by ~~the~~ said drum shaft, including:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

flanges provided on end portions of said cylinder in the axial direction of ~~the~~
said cylinder,

wherein at least one of said flanges ~~the flange~~ has an outer peripheral
portion, a hole portion engaging the said drum shaft, and a groove which engages a fixing
pin provided in ~~the~~ said drum shaft in a direction ~~of~~ intersecting ~~the~~ said drum shaft,

wherein said ~~the~~ groove ~~being extended~~ extends in the radius radial
direction and ~~transmitting~~ transmits a driving force of the said drum shaft, and

wherein said at least one of said flanges ~~the flange~~ is caulked by bending at
least one part of the said cylinder inwardly in the radius radial direction at two positions
opposing each other across the said hole portion, in a direction in which said groove
extends at which the groove intersects the outer peripheral portion in an extending
direction thereof; and

(iv) process means for acting for ~~the~~ said electrophotographic photosensitive drum.

13. (Currently Amended) A process cartridge according to claim 12, wherein said
at least one of said flanges ~~the flange~~ has a concave portion provided in ~~the~~ said outer
peripheral portion and part of ~~the~~ said cylinder is bent inwardly in the radius radial
direction and caulked to said at least one of said flanges ~~the cylinder~~.

14. (Currently Amended) A process cartridge according to claim 12, wherein said
at least one of said flanges ~~the flange~~ has a rib ~~extended radially~~ extending in the radius
radial direction on the face of a side of said at least one of said flanges opposite to the side
of said at least one of said flanges on which ~~the~~ said groove is provided in the axial

direction, and at least one part of ~~the~~ said cylinder is caulked at positions other than the positions of the outer peripheral portion intersected by the direction in which a plurality of ribs extends ~~at which the rib intersects the outer peripheral portion in an extending direction thereof.~~

15. (Currently Amended) An image forming apparatus, comprising a loading portion, a process cartridge, carrying means, and transfer means, which allows a said process cartridge to be attached thereto and detached therefrom and attached/detached for forming an image on a recording medium, ~~comprising:~~

(i) a wherein said loading portion detachably mounts ~~on which the~~ said process cartridge ~~is mounted detachably;~~

(ii) a wherein said process cartridge is loaded on ~~the~~ said loading portion, ~~the~~ said process cartridge including:

a cartridge frame ~~body;~~ body;

a drum shaft supported by ~~the~~ said cartridge frame ~~body;~~ body; and

an electrophotographic photosensitive drum rotatably supported ~~rotatably~~ by ~~the~~ said drum shaft, ~~the~~ said electrophotographic photosensitive drum including:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

flanges provided on end portions of said cylinder in an axial direction of ~~the~~ said cylinder,

wherein at least one of said flanges ~~the flange~~ has an outer peripheral portion, a hole portion engaging ~~the~~ said drum shaft, and multiple ribs ~~extended radially~~ extending radially in the ~~radius~~ radial direction, and

wherein said at least one of said flanges ~~the flange~~ is caulked by bending at least one part of ~~the~~ said cylinder inwardly in the ~~radius~~ radial direction at two positions opposing each other across ~~the~~ said hole portion, the two positions being other than positions on said outer peripheral portion intersected by the direction in which said multiple ribs extend at which the multiple ribs intersect the outer peripheral portion in the extending directions thereof; and

(iii) carrying means for carrying the recording medium; and

(iv) wherein said transfer means transfers an image formed on said electrophotographic photosensitive drum onto the recording medium.

16. (Currently Amended) An image forming apparatus, comprising a loading portion, a process cartridge, carrying means, and transfer means, which allows a said process cartridge to be attached thereto and detached therefrom ~~attached/detached~~ and which is for forming an image on a recording medium, ~~comprising:~~

(i) a wherein said loading portion detachably loads ~~on which the~~ said process cartridge ~~is loaded detachably~~;

(ii) a wherein said process cartridge is loaded on ~~the~~ said loading portion, ~~the~~ said process cartridge including:

a cartridge frame ~~body~~; body;

a drum shaft supported by ~~the~~ said cartridge frame ~~body and~~ body; and

an electrophotographic photosensitive drum rotatably supported ~~rotatably~~ by the said drum shaft, ~~the~~ said electrophotographic photosensitive drum including:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

a flange provided on end portions of said cylinder in the axial direction of the said cylinder,

wherein ~~the~~ said flange has an outer peripheral portion engaging the said cylinder, a hole portion engaging the said drum shaft, and a groove which engages a fixing pin provided in the said drum shaft in a direction ~~of~~ intersecting the said drum shaft,

wherein said the groove being extended extends in the radius radial direction and ~~transmitting~~ transmits a driving force of the said drum shaft, and

wherein said the flange is caulked by bending at least one part of the said cylinder inwardly in the radius radial direction at two positions opposing each other across the said hole portion, in a direction in which said groove extends; at which the groove intersects the outer peripheral portion in an extending direction thereof; and

(iii) wherein carrying means for carrying the recording medium; and

(iv) wherein said transfer means transfers an image formed on said electrophotographic photosensitive drum onto the recording medium.

17. (Currently Amended) An electrophotographic photosensitive drum for use in an electrophotographic image forming apparatus and rotatably supported ~~rotatably~~ by a drum shaft, comprising:

a cylinder having an electrophotographic photosensitive member provided on a surface thereof; and

a flange provided on an end portion of said cylinder in an axial direction of ~~the~~ said cylinder, wherein ~~the~~ said flange comprises:

an outer peripheral portion;

a hole portion engaging ~~the~~ said drum shaft; and

a groove which engages a fixing pin provided in the drum shaft in a direction ~~of~~ intersecting the drum shaft,

wherein said ~~the~~ groove ~~being extended~~ extends in the radius radial direction and ~~transmitting~~ transmits a driving force of the drum shaft, and

wherein ~~the~~ said flange is caulked by bending a at least one part of ~~the~~ said cylinder inwardly in the radius radial direction at two positions located ~~in a range of the~~ along said outer peripheral portion between a ~~position in~~ direction in which ~~the~~ said groove extends and a direction which forms an angle of 45° with ~~intersects the outer peripheral~~ portion in an extending direction thereof and a position in which a direction along a line passing a center of ~~the~~ said hole portion ~~and extending at an angle of 45° with respect to~~ the ~~extending~~ direction of ~~the~~ in which said groove extends intersects ~~the outer peripheral~~ portion, the two positions being opposed ~~with~~ to each other across a line intersecting the extending direction of ~~the~~ said groove.

18. (Currently Amended) A process cartridge attachable to/detachable from an electrophotographic image forming apparatus, comprising:

(i) a cartridge frame body;

- (ii) a drum shaft supported by the said cartridge frame body;
- (iii) an electrophotographic photosensitive drum rotatably supported ~~rotatably~~ by the said drum shaft, including:
- a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and
 - a flange provided on an end portion of said cylinder in the axial direction of the said cylinder, wherein said flange includes:
 - an outer peripheral portion;
 - a hole portion engaging the drum shaft; and
 - a groove which engages a fixing pin provided in said drum shaft in a direction intersecting said drum shaft,
- wherein said groove extends in the radial direction and transmits a driving force of said drum shaft, and
- wherein said flange is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions being located along said outer peripheral portion between a direction in which said groove extends and a direction which forms an angle of 45° with a direction along a line passing the center of said hole portion with respect to the direction in which said groove extends, the two positions being opposed to each other across a line intersecting the extending direction of said groove; and
- (iv) process means for acting on the said electrophotographic photosensitive drum, wherein the flange includes: ~~an outer peripheral portion; a hole portion engaging the drum shaft; and a groove which engages a fixing pin provided in the drum shaft in a direction of intersecting the drum shaft, the groove being extended in the radius direction~~

~~and transmitting a driving force of the drum shaft, and wherein the flange is caulked by bending a part of the cylinder inwardly in the radius direction at two positions being located in a range of the outer peripheral portion between a position in which the groove intersects the outer peripheral portion in an extending direction thereof and a position in which a line passing the center of the hole portion and extending at an angle of 45° with respect to the extending direction of the groove intersects the outer peripheral portion, the two positions being opposed with each other across a line intersecting the extending direction of the groove.~~

19. (Currently Amended) An image forming apparatus, comprising a loading portion, a process cartridge, carrying means, and transfer means, which allows a said process cartridge to be attached thereto and detached therefrom ~~/detached~~ and is for forming an image on a recording medium, ~~comprising~~:

(i) wherein said loading portion detachably mounts on which the said process cartridge is mounted detachably;

(ii) a wherein said process cartridge is detachably loaded on the said loading portion, the said process cartridge including:

a cartridge frame ~~body~~, body;

a drum shaft supported by ~~the said cartridge frame body~~, body; and

an electrophotographic photosensitive drum rotatably supported ~~rotatably~~ by the said drum shaft, said electrophotographic photosensitive drum comprising:

a cylinder having an electrophotographic photosensitive member provided on the surface thereof; and

a flange provided on an end portion of said cylinder in an axial direction of said cylinder, wherein said flange comprises:

an outer peripheral portion;

a hole portion engaging said drum shaft; and

a groove extending in the radial direction and engaging a fixing pin provided in said drum shaft in a direction intersecting said drum shaft,

wherein said groove transmits a driving force of the drum shaft, and

wherein said flange is caulked by bending at least one part of said cylinder inwardly in the radial direction at two positions located along said outer peripheral portion between a direction in which said groove extends and a direction which forms an angle of 45° with a direction along a line passing the center of said hole portion with respect to the direction in which said groove extends, the two positions being opposed to each other across a line intersecting the extending direction of said groove; and

~~process means for acting on the said electrophotographic photosensitive drum; drum, and the electrophotographic photosensitive drum having a cylinder having an electrophotographic photosensitive member provided on the surface thereof, and a flange provided on an end portion in an axial direction of the cylinder;~~

(iii) wherein said carrying means for carrying carries the recording medium; and medium;

(iv) wherein said transfer means transfers an image formed on said electrophotographic photosensitive drum onto the recording medium.

~~wherein the flange being comprises:~~

~~an outer peripheral portion;~~

~~a hole portion engaging the drum shaft; and~~

~~a groove extending in the radius direction and engaging a fixing pin provided in the drum shaft in a direction intersecting the drum shaft and the groove transmitting a driving force of the drum shaft;~~

~~and wherein the flange is caulked by bending part of the cylinder inwardly in the radius direction at two positions located in a range of the outer peripheral portion between a position in which the groove intersects the outer peripheral portion in an extending direction thereof and a position in which a line passing the center of the hole portion and extending at an angle of 45° with respect to the extending direction of the groove intersects the outer peripheral portion, the two positions being opposed with each other across a line intersecting the extending direction of the groove.~~